

**IN THE CLAIMS:**

1-7. (Canceled)

8. (Currently amended) A method of regeneration of bone or cartilage in ~~an animal subject a mammal~~ suffering breakage, degeneration, depletion or damage of bone or cartilage, comprising administering to said ~~animal subject mammal~~ a DNA molecule, wherein said DNA molecule comprises the nucleotide sequence as set forth in SEQ ID NO: 20 or a nucleotide sequence coding for a SOX-9 polypeptide wherein said SOX-9 polypeptide comprises the amino acid sequence as set forth in SEQ ID NO: 21, such that said DNA molecule is expressed to produce said SOX-9 polypeptide comprising the amino acid sequence as set forth in SEQ ID NO: 21, leading to regeneration of bone or cartilage.

9-13. (Canceled)

14. (Previously presented) The method of claim 8, wherein said DNA molecule comprises the nucleotide sequence as set forth in SEQ ID NO: 20.

15. (Previously presented) The method of claim 8, wherein said DNA molecule comprises a nucleotide sequence coding for a SOX-9 polypeptide, and wherein said SOX-9 polypeptide comprises the amino acid sequence as set forth in SEQ ID NO: 21.

16-18. (Canceled)

19. (New) A method of regeneration of bone or cartilage in a mammal suffering breakage, degeneration, depletion or damage of bone or cartilage, comprising administering a DNA molecule locally to the region where said breakage, degeneration, depletion or damage of bone or cartilage occurs in said mammal, wherein said DNA molecule comprises the nucleotide sequence as set forth in SEQ ID NO: 20 or a nucleotide sequence coding for a SOX-9 polypeptide wherein said SOX-9 polypeptide comprises the amino acid sequence as set forth in SEQ ID NO: 21, such that said DNA molecule is expressed to produce said SOX-9 polypeptide

comprising the amino acid sequence as set forth in SEQ ID NO: 21, thereby regenerating bone or cartilage in said mammal.